various computer-implemented operations. The computer-readable medium includes any data storage device that can store data which can thereafter be read by a computer system. Examples of computer-readable media include, but are not limited to: magnetic media such as disks and magnetic tape; optical media such as CD-ROM disks; magneto-optical media such as optical disks; and specially configured hardware devices such as application-specific integrated circuits (ASICs), programmable logic devices (PLDs), and ROM and RAM devices. Examples of program code include both machine code as produced, for example, by a compiler, or files containing higher level code (e.g., script) that can be executed using an interpreter.

[0104] The computer system as shown in FIG. 10 is an example of a computer system suitable for use with the various embodiments disclosed herein. Other computer systems suitable for such use can include additional or fewer subsystems. In some computer systems, subsystems can share components (e.g., for touchscreen-based devices such as smartphones, tablets, etc., I/O device interface 1002 and display 1001 share the touch-sensitive screen component, which both detects user inputs and displays outputs to the user). In addition, bus 1010 is illustrative of any interconnection scheme serving to link the subsystems. Other computer architectures having different configurations of subsystems can also be utilized.

Definitions

[0105] To aid in understanding the detailed description of the compositions and methods according to the disclosure, a few express definitions are provided to facilitate an unambiguous disclosure of the various aspects of the disclosure. Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this disclosure belongs.

[0106] It is noted here that, as used in this specification and the appended claims, the singular forms "a," "an," and "the" include plural reference unless the context clearly dictates otherwise. The terms "including," "comprising," "containing," or "having" and variations thereof are meant to encompass the items listed thereafter and equivalents thereof as well as additional subject matter unless otherwise noted.

[0107] The phrases "in one embodiment," "in various embodiments," "in some embodiments," and the like are used repeatedly. Such phrases do not necessarily refer to the same embodiment, but they may unless the context dictates otherwise.

[0108] The terms "and/or" or "I" means any one of the items, any combination of the items, or all of the items with which this term is associated.

[0109] As used herein, the term "each," when used in reference to a collection of items, is intended to identify an individual item in the collection but does not necessarily refer to every item in the collection. Exceptions can occur if explicit disclosure or context clearly dictates otherwise.

[0110] The use of any and all examples, or exemplary language (e.g., "such as") provided herein, is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention unless otherwise claimed. No language in the specification should be construed as indicating any non-claimed element as essential to the practice of the invention.

[0111] All methods described herein are performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. In regard to any of the methods provided, the steps of the method may occur simultaneously or sequentially. When the steps of the method occur sequentially, the steps may occur in any order, unless noted otherwise.

[0112] In cases in which a method comprises a combination of steps, each and every combination or sub-combination of the steps is encompassed within the scope of the disclosure, unless otherwise noted herein.

[0113] Each publication, patent application, patent, and other reference cited herein is incorporated by reference in its entirety to the extent that it is not inconsistent with the present disclosure. Publications disclosed herein are provided solely for their disclosure prior to the filing date of the present invention. Nothing herein is to be construed as an admission that the present invention is not entitled to antedate such publication by virtue of prior invention. Further, the dates of publication provided may be different from the actual publication dates which may need to be independently confirmed.

[0114] It is understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested to persons skilled in the art and are to be included within the spirit and purview of this application and scope of the appended claims.

What is claimed is:

1. A method for providing information about a subject, comprising:

receiving facial image data transmitted from a user device, the facial image data comprising at least a captured facial image of the subject;

transforming the facial image data to facial recognition

comparing by a server device the facial recognition data to reference facial recognition data associated with a plurality of stored facial images of individuals to identify at least one likely candidate matching the captured facial image;

upon identification of the candidate matching the captured facial image, retrieving from the database personal information associated with the candidate; and

transmitting the personal information to the user device and causing the user device to display the personal information.

- 2. The method of claim 1, further comprising preprocessing an image of the subject by the user device.
- 3. The method of claim 2, wherein the step of preprocessing comprises detecting by the user device a facial image in the image of the subject or performing cropping, resizing, gradation conversion, median filtering, histogram equalization, or size normalized image processing.
- **4**. The method of claim **1**, wherein the facial image is captured by a camera-enabled user device.
- **5**. The method of claim **4**, wherein the user device is provided in a customized enclosure with an opening for the camera.
- $\pmb{6}$. The method of claim $\pmb{1}$, wherein the image is captured by a network camera.
- 7. The method of claim 1, wherein the image is imported from a second user device.